### **Montgomery County, Maryland**



Department of Permitting Services
Commercial Building Permit Calculation Process Review
September 15, 2009

### COMMERCIAL BUILDING PERMIT CALCULATION PROCESS REVIEW

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### Introduction

This document summarizes the work that Cherry, Bekaert and Holland (CBH) has performed in reviewing the Montgomery County Department of Permitting Services procedures for calculating Commercial Building Permit Fees. It sets out the individuals interviewed, documents reviewed, the results of CBH recalculation of permit fees, and recommendations to the Department of Permitting Services (DPS). Included under a separate cover is a preliminary audit plan CBH recommends be applied to the Commercial Building Permit Fee process.

### **Background**

The Department of Permitting Services (DPS), established in 1996, ensures compliance with Montgomery County (County) development and construction standards. Currently, DPS includes the Office of the Director and three divisions: Casework Management, Land Development, and Building Construction. Casework Management is the customer service arm of the department that interfaces directly with county residents and businesses. The Building Construction Division includes engineers who review plans and inspect commercial and residential buildings. Engineers and inspectors of water-quality related construction and well and septic systems work within the Land Development Division.

DPS is the issuer of permits for construction and development activity within the County. The department accepts applications for projects, reviews project plans for compliance with county codes, assesses and collects permit fees for approved projects, and inspects projects at completion for approval for occupancy or use. The department also coordinates the approval of permits by other agencies that the department issues. DPS uses an automated permitting system, Hansen, which interfaces with the County web site to allow applicants to monitor the permitting process and manage the inspection process.

Prior to starting any construction or development project a County resident or business must apply and gain approval of a construction permit. Applications are presented by Applicants to the Permit Technicians who staff the Casework Management Division of DPS. Permit Technicians accept completed applications and enter application details into Hansen. In addition, the Permit Technicians will collect a filing fee from the Applicant. Plan Reviewers from the Building Construction Division will review the project plans and approve the issuance of the construction permit. The Hansen system is used to calculate the construction permit fee that must be collected by the Permit Technician before the issuance of a permit.

Annually, the Montgomery County Council passes an executive regulation that approves the Schedule of Fees from Permits, Licenses and Certifications that sets the fees charged for construction permits. The executive regulation sets forth two fee schedules for construction permits depending on site location of the construction project. One fee schedule is set for construction sites that are located in a Maryland National Capital Park and Planning Commission (MNCPPC) zone and another fee schedule is set for construction sites not in a MNCPPC zone. The Construction Permit Fee includes a flat

filing fee that is paid when the permit application is submitted and final permit fee based on a local permit-fee multiplier that is applied against a project's construction value. Additional fees are assessed for permits submitted for expedited processing and when previously submitted plans are revised. In addition, each application is charged automation fees to support the operations of the Hansen and document imaging systems used by DPS. Lastly, if the site of construction is in a designated Impact District the applicant is charged Impact Fees to fund county improvements in transportation and public schools. All permitting fees collected by DPS are used to fund the operations of the department. The Impact Fees are collected by DPS but are used by the County in the development of schools and roads.

The filling, final permit, and automation fees are calculated in Hansen. The Permit Tech calculates the fees for expedited and revised applications separately. Detailed below are the fees that can be included in a construction permit:

**Table 1 – Construction Permit Fees** 

Table 1 - Construction Fermit Fees			
Fee	Fee Description		
Filing	Fixed fee charged when application is filed. Fee amount is higher if construction site is in MNCPPC zone.		
Construction Permit	Calculated fee charged when permit is approved. Amount determined by construction value multiplied by the loc permit-fee multiplier in the Montgomery County Schedule Fees from Permits, Licenses and Certifications		
Overtime	Charged when applicant requests that application review be expedited. Amount is 25 % of the sum of the Filling Fee and Construction Permit Fee and associated automation Fees.		
Revision	Charged when applicant submits a revision to the application. Amount is the higher of the application filing fee or the construction value of the revised area applied to the local permit-fee multiplier.		
Automation	Charged when application is filed and permit is approved. Amount is 10% of the Filing, Construction Permit, Overtime, and Revision Fee.		
Impact	Charged when a construction location is in an Impact District. The fees are collected by DPS but are used by the County in the development of schools and roads.		

In March of 2009, the DPS staff discovered errors in permitting fees calculated during the four months preceding March. Because of these errors, DPS performed a review of fees calculated for 54 Commercial Building Permits issued from July 2008 to January 2009 of which 38 were found to have errors in the permit fee calculation. The net impact of the errors noted was \$71,000 in underpayments. The errors range from as low as \$15 to as high as \$51,000, with a total \$7,000 in overpayments and \$78,000 in underpayments. The Director of DPS requested assistance from the Internal Audit Section in determining the cause and extent of the errors.

### **Executive Summary**

In a limited scope, independent review of the Commercial Building Permit Fee Calculation Process conducted between May 13, 2009 and June 19, 2009, Cherry Bekaert & Holland (CBH) found significant errors in the calculation of permit fees. Interviews of key personnel involved in the process and testing of transactions have helped identify areas where internal controls could be strengthened. These included:

- Incomplete or inaccurate data entry contributes to permitting errors. The
  calculation of permitting fees is dependent upon the accurate entry of data into
  the Hansen system such as construction type, use of space, square footage and
  construction value by the Permit Technician and Plan Reviewer.
- Control Activities designed to prevent or detect errors in permit fee calculations are not formally present. The current permitting process procedures do not include any formal control activities that review or validate the interpretations or judgments of the Permit Technicians or Plan Reviewers

The existence of these errors, have led us to characterize the Department of Permitting Services Commercial Building Permit Fee Calculation process as one with a high degree of risk. Immediate action items the Department of Permitting Services can implement to mitigate risk include:

- Reinforcement with the Plan Reviewer staff through existing training activities of the construction value fields that need to be completed based upon the Type of Work defined in the permit application.
- Provide Permit Technicians with a chart that summarizes for each Type of Work
  the construction cost value field that must be completed in Hansen and require
  they consult the chart prior to finalizing the permit and not finalize a permit that
  has the incorrect construction cost value field completed.

To further decrease the likelihood of permitting errors occurring, the development and implementation of quality control activities that prevent or detect errors in data entry and judgment that impact the calculation of permit fees should be considered. The department should consider the performance of additional audit work on Commercial Building Permits it issued in FY 2009 to determine an estimate of the total error rate and dollar magnitude of the calculation errors. CBH has developed an audit plan for a more extensive review. Knowledge of the full magnitude of the under or over collection of fees will aid the department in determining the level of effort that should be undertaken to reduce errors in the Commercial Building Permit process.

Since the Department of Permitting Services relies on fees collected to fund department operations, any significant under or over collection of fees would impact the department's ability to provide services to County residents and businesses. The department should ensure it is exercising its full legal power to collect any funds due to the County and that proper procedures are followed to return overpayments to applicants. CBH recommends that the Department of Permitting Services consult with

the County Attorney regarding the current legal recourse the department has to collect additional fees once a permit is issued and responsibility, if required, to return overpayments to applicants.

DPS provided a formal response to the report on August 28, 2009 which is incorporated at Appendix C. The letter provided described DPS efforts as of the date of response in implementing process improvements and management actions taken to address the issues raised in this report. In addition, DPS after reviewing the testing results and performing additional work requested further clarification related to the description of one of the errors we had noted in the Results section. Overall, we believe DPS' recent actions and plans are positive steps towards reducing its risk of producing inaccurate permit fee calculations. Our detailed evaluation of their response is found in the DPS Comments and Evaluation section of this report and in Appendix D.

### **Objective**

One objective of the engagement was to review the adequacy of internal controls over processes and procedures used by Montgomery County's Department of Permitting Services to calculate Commercial Building Permit Fees charged to applicants. As part of this review of internal controls the County wanted to better understand actions it could undertake to better ensure that it calculates permit fees correctly, to improve the accuracy of future billings and to correct past billing errors as applicable. This review concentrated on the Commercial Building Permit Fees and excluded Residential Permit Fees due to the greater value of fees collected under commercial construction compared to residential construction. A second engagement objective was to produce a brief, Interim Report of our results and recommendations and develop a formal risk based audit plan, which is presented under a separate cover. This Report was prepared in conjunction with standards for consulting engagements of the American Institute of Certified Public Accountants. Interviews, documentation review, and field work were conducted from May to June 2009.

### **Approach and Methodology**

CBH reviewed all available policies and procedures and conducted interviews with DPS staff to gain an understanding of the Commercial Building Permit Fee calculation process and to identify internal controls present in the current process.

### Interviews and Documentation Review

The key personnel from the DPS Department interviewed and their process rolls are presented below:

Table 2 – Interview Listing

Name	Position Title	Process Role
Carla Reid	Director Permitting Services Department	Director of all department activities
Hadi Mansouri	Chief, Division of Building Construction	Head of the Division of Building Construction which includes Plan Reviewers
Gail Lucas	Permitting Services Manager	Manager of Permit Technicians, oversees and monitors activity of Permit Technicians
Thomas Laycock	IT Manager	Supports users of and maintains the Hansen Permitting System
George Muste	Manager	Manager of Plan Reviewers in Division of Building Construction
Mariano De-La Puente	Permitting Services Specialist	Reviews construction plans and confirms construction cost value from which permit fees are based

Name	Position Title	Process Role
Layi Afinnih	Senior Permitting Services Specialist	Reviews construction plans and confirms construction cost value from which permit fees are based
Chris Allen	Permit Technician	Processes permit application and finalizes permit fees
Rebecca Mason	Permit Technician	Processes permit application and finalizes permit fees

Documentation reviewed is presented below:

**Table 3 – Document Review Listing** 

Table 5 - Document Review Listing				
Document Reviewed	Purpose			
Review of Commercial Permit Fees Report and Excel Schedule of 54 permits reviewed by DPS from the 2008-09 permits	To gain an understanding of the type of errors the DPS staff identified during their detailed review of the calculation of FY 2009 commercial permits reviewed			
Department of Permitting Services Existing and Organization Chart	To gain an understanding of the department structure			
Department of Permitting Services Proposed and Organization Chart	To gain an understanding of changes to the department structure effective July 1, 2009			
Executive Regulation 17-07 Schedule of Fees for Permits, Licenses and Certifications	To gain an understanding of the authorization for the construction permits fee structure and what were the fees effective for FY 2008			
Executive Regulation 11-08 Schedule of Fees for Permits, Licenses and Certifications	To gain an understanding of the authorization for the construction permits fee structure and what were the fees effective for FY 2009			
Executive Regulation 9-08 Overtime Offset Fees	To gain an understanding of the authorization for the overtime fee and the fee structure			
Position Description for Management Leadership Service Manager I	To gain an understanding of the duties and responsibilities of the Permitting Services Manager			
Position Description for Permit Technician I, Permit Technician II, and Permit Technician III	To gain an understanding of the duties and responsibilities of the Permit Technician			
Position Description for Permitting Services Specialist I, Permit Technician Permitting Services Specialist II, and Permitting Services Specialist III	To gain an understanding of the duties and responsibilities of the Plan Reviewer			
Commercial Building Permit Process: Application Intake, Plan Review, Permit Issuance & Inspections	To gain an understanding of the procedures documented by the Department of Permitting Services			
Hansen System Manual Version 7	To gain an understanding of how information flows in Hansen and how the system is used to calculate permit fees			
DPS Building Code Work Sheets	To gain an understanding of how the International Code Council, International Building Codes (IBC) codes are entered in Hansen are used to calculate permit fees			

### <u>Documentation of the Permitting Process</u>

CBH prepared written summaries of the interviews held with the key DPS personnel. After assessing the documentation reviewed and information obtained in the interviews conducted, CBH prepared a process flow chart in which three distinct phases were identified in the Commercial Building Permit Calculation process: 1. Application Acceptance by the Permit Technician, 2. Establishment of Construction Value by the Plan Reviewer, and 3. Permit Fee Finalization by the Permit Technician. The flow chart depicting these procedures is presented at the Appendix to this Report. The flow chart was reviewed with the key DPS personnel with oversight responsibilities in the permitting process for accuracy and reflects their input after review.

Based upon the work performed, and our understanding of the process, CBH identified the following:

- Key commercial building permit types
- Key steps in the permit calculation process
- Key Controls in the Process
- The system used in the process (Hansen) and flow of information through the system
- Documentation that details policy and procedures, fee structure and scale, and responsibilities of the key individuals in the process (i.e. Permit Techs and Plan Reviewers)
- Key Risks in the Process.
- The Periodic Meetings which take place between the Permitting Supervisor and the Permit Technicians to update process information

### Transaction Testing

Based upon CBH's documented understanding of the Commercial Building Permit Fee calculation process, CBH had sufficient information to develop key attributes to test transactions. In addition, CBH reviewed the DPS report on the results of its testing of 54 permit transactions. DPS found 38 permit calculation errors with a net value of \$71k in underpayments (\$78,000 underpayments and \$7,000 overpayments). The errors range in value from \$15 to \$51,000. The error rate based on 38 of 54 transactions was 70%.

The objective of the testing was to provide a validation of process understanding and the identification of risks in the permit calculation process. A judgmental sample consisting of five transactions was agreed to between CBH and Office of Internal Audit.

CBH then contacted the DPS office and obtained a download of Commercial Building Permits issued between July 1, 2008 and May 29, 2009, from the DPS IT Manager after discussing the methodology with the Permitting Services Manager. The download included the 54 transactions previously reviewed by DPS. CBH using IDEA, a data extraction and analysis software application, selected five transactions from the overall population of 1345 transactions that included the following attributes:

- Permit Types Commercial or Fast Commercial Build
- A high dollar Construction Permit

- Overtime Fee
- Plan Revision Fee
- Work Type Construction (Const), Addition, Foundation
- Work Type Alteration, Demolish, Restore/Repair/ Change of use

CBH recalculated the construction permit fee for the five commercial building permits. CBH performed the recalculation with assistance from DPS Managers, a Permit Technician and a Permitting Specialist, who provided technical knowledge in displaying data in the Hansen system, reviewing Plan Reviewers notes, and providing independent interpretations of construction plans<sup>1</sup>. The recalculation procedures included the following:

- Validating the accuracy and completeness of information entered into the Hansen system from the Permit Application by the Permit Technician.
- Validating the accuracy and reasonableness of the construction cost value assigned to the application by the Plan Reviewer.
- Recalculating the filing, construction permit, overtime, revision, automation, and impact fees charged to the permit applicant.

CBH noted dollar differences in two of the five transactions tested. In the case of one transaction, the permit fee calculated by CBH was 84% greater than the amount collected from the applicant. In the other transaction an applicant was potentially overcharged by 5%. The permits where exceptions were noted had been processed by two different Permit Technicians and two different Plan Reviewers. Details of the transaction tested and the descriptions of the errors noted are presented below:

Permit Number	Permit Fee Charged by DPS	Permit Fee Recalculated by CBH	Difference in Permit Fee Calculation
467082	\$277,250.00	\$277,250.00	\$0.00
472967	\$43,593.00	\$43,593.00	\$0.00
494458	\$3,747.00	\$6,884.00	(\$3,137.00)
495223	\$11,541.00	\$10,975.00	$($566.00)^2$
503799	\$908.00	\$908.00	\$0.00

Table 4 - Summary of the Five Testing Transactions

### Permit Number 494458

Per the Schedule of Fees for Permits, Licenses and Certifications, when the type of construction is new or addition a calculated construction value should be used in determining the permit fee. The calculated construction value is calculated by Hansen based upon input by the Plan Reviewer. The Plan Reviewer for this permit did not enter the necessary values needed by Hansen to calculate a correct construction value.

<sup>&</sup>lt;sup>1</sup> CBH relied on the professional judgment of the DPS Managers regarding reasonableness of information entered into Hansen for engineering, architectural and zoning assessment of documentation submitted in support of the permit application.

<sup>&</sup>lt;sup>2</sup> After CBH completed its field work for this engagement DPS performed another review of this transaction and concluded that the original fee was accurately computed at \$11,541. CBH was not able to validate the subsequent review work.

Instead the Permit Technician manually calculated the permit fee using the incorrect construction value. In addition, the Permit Technician calculated an overtime fee using a manually calculated permit fee that was based on the incorrect construction value. Lastly, the Permit Technician identified the construction building as an office instead of a retail space with resulted in Hansen using a higher rate to calculate the Impact Fee. CBH concluded that the applicant was undercharged for the permit fee by \$3,137.

### Permit Number 495223

Per the Schedule of Fees for Permits, Licenses and Certifications, when construction plans are revised the applicant is to be charged either the construction permit fee for the revised construction area or the standard permit application filing fee, whichever is higher. The Plan Reviewer did not document the construction value of the plan revision area as required. As a result, the Permit Technician was unable to calculate the construction permit fee for the revision. Due to the Permit Technician's inability to calculate a construction permit fee for the revision, the Permit Technician was unable to determine if the standard permit fee or the permit fee for the revised construction area was the highest fee to charge the applicant. The Permit Technician charged the standard permit fee. Based upon the information available at the time, CBH could not conclude if the \$566 was the correct fee to charge for the revision and should be included in the total permit fee charged to the applicant.

### Subsequent Review of Permit 495223 by Department of Permitting Services

DPS did a subsequent review of Permit Number 495223 and calculated the permit fee for the plan revision and determined that the standard permit fee of \$566 was the higher of the two fees and therefore was the correct fee to charge to include in the permit fee. Assuming DPS' subsequent review is correct, the permit applicant was not overcharged. Because the DPS review occurred after the CBH field work for this report was completed CBH did not verify that the fee was accurate as charged.

### Results.

Based upon the testing we completed and our review of the process, CBH found the following results:

### 1. Incomplete or inaccurate data entry contributes to permitting errors

The calculation of permitting fees is dependent upon the accurate entry of data into the Hansen system such as construction type, use of space, construction value, and in the instance of new construction square footage by the Permit Technician and Plan Reviewer. In addition, permit fees that are manually calculated by Permit Technicians use the fees calculated by Hansen, which are based upon data entered into Hansen by the Permit Technician and Plan Reviewer. While Hansen does provide messages when required fields are not completed, it does not edit the data entered to ensure it meets any set data requirements (e.g. the square footage or construction value entered is a set number of digits). Although Permit Technicians use a checklist to ensure all key information is entered into Hansen it is used informally and it does not provide detailed guidance of the type of work and construction values the Permit Tech should verify prior to issuance of a permit. The checklist does not provide guidance to ensure that the permit technicians do not manually calculate construction permit fees when Hansen has

calculated a zero value for the permit fee. In the interviews conducted, DPS staff commented that the most common factor they could identify for permitting errors was data entry errors in Hansen. In testing performed by CBH and DPS staff the incompleteness of data entry was identified as a contributing factor for errors noted.

### 2. <u>Control Activities designed to prevent or detect errors in permit fees not formally present</u>

The information used in calculating permit fees is based upon information and construction plans provided by permit applicants that are reviewed, assessed and interpreted by Permit Technicians and Plan Reviewers. The current permitting process procedures do not include any formal control activities that review or validate the interpretations or judgments of the Permit Technicians or Plan Reviewers. While the Permitting Services Manager does perform ad-hoc reviews of information reviewed and assessed by Permit Technicians, a limited number of transactions are reviewed and the sample is not selected in a systematic manner. There is no review or validation of Plan Reviewer assessment and judgments prior to the Permit Technician finalizing fees or issuing permits to applicants.

Having a review by a second individual increases the likelihood that errors will be detected. In the case of both errors identified in the testing, such a review would likely have caught the incorrect construction value in the first transaction and the incorrect permit filing fee in the second.

### Recommendations

### Immediate Actions

The following are actions which DPS could take immediately to help address the problems our work identified:

### 1. Reinforcement with Plan Reviewers through existing training activities

During regularly held training sessions, Supervisors should reinforce with the Plan Reviewers the construction values that should be present in Hansen based upon the type of work being performed. The errors noted in testing were the result of a Plan Reviewer not entering required construction values into Hansen. The training should review the Plan Reviewer's responsibility to ensure Hansen has the correct construction value based upon the type of work detailed in the permit application. In addition, the training should provide the Plan Reviewer with guidance on how and where in Hansen to document the construction values for plan revision to ensure Permit Technicians have the necessary information to select the proper Revision Fee to charge permit applicants. This in-service training would complement the current informal updates which occur when the Permit Technicians meet on a periodic basis.

### 2. Consider the use of a Type of Work – Construction Value Chart

The Permit Technicians should be provided with a chart that summarizes, for each type of work, the construction cost value field that must be completed in Hansen. Currently, the Permit Technicians maintain a notebook where this type of information is recorded and accessed, but the information may not be uniform or complete across the group. In

addition, Permit Technicians should be provided guidance to ensure they do not manually calculate construction permit fees when Hansen has calculated a zero value for the permit fee. The Permit Technicians should be directed to contact the respective Plan Reviewer to ensure the proper construction value is present in Hansen to facilitate the systems calculation of the construction permit fee.

### Subsequent Actions

On a longer term basis, we recommend that the following activities be undertaken:

### 1. Implementation of Quality Control Activities

CBH recommends the Department of Permitting Services develop and implement quality control activities to be used to detect errors in permit fees. The development and implementation of a mix of system and manual control activities should be considered. The timely detection of permitting errors can prevent the over or under collection of fees. The control activities should be applied to a sample of transactions selected in systematic manner to ensure all permit and work types are eligible for selection. The performance of the control activities should be done on a systematic basis (i.e., not ad hoc) Those performing the control activities should be able to perform a detail review of transactions that validates the data entered into Hansen and the judgments made by Permit Technicians and Plan Reviewers in processing the permit application. The results of the control activity should be used to determine if additional transactions should be reviewed and if any additional training or reinforcement of procedures should be conducted.

### **Other Considerations**

CBH also recommends the following:

### 1. <u>The Department of Permitting Services should Consider Undertaking a More Comprehensive Review of Permits issued in FY 2009</u>

CBH recommends that the Department of Permitting Services consider the performance of a more comprehensive review of the Commercial Building Permits issued in FY 2009 to determine the magnitude of the over/under collection of permitting fees. The errors that we found in the testing were significant especially for such a small sample and justify further exploration as to how serious the problems are in monetary terms. The limited sample reviewed by CBH plus the numerous errors identified previously by DPS Management indicate a potentially significant error rate. The performance of such a review will increase the likelihood of identifying pervasive causes for permitting errors and any systemic error patterns with transaction types or transaction processors. CBH is recommending an audit plan that will provide the department with an approach to conduct such a review. A preliminary audit plan for this review has been submitted under separate cover.

### 2. <u>The Department of Permitting Services should determine its Recourse and</u> Responsibility for the Collection and Reimbursement of Fees

CBH recommends that the Department of Permitting Services consult with the Montgomery County Attorney regarding the department's legal ability to collect additional fees and its responsibility to refund permit fees. It is unclear what collection recourse, once a permit is issued, DPS has to pursue the collection of additional permit fees from an applicant due to an error by the department. Also, the length of time within which DPS is required to return overpaid fees to applicants should be determined. Since the permitting fees collected by DPS are used to fund department operations, DPS should ensure it is exercising its full power to collect any funds due to the County and return any funds due to permit applicants.

### **DPS Comments and CBH Evaluation**

We provided the Department of Permitting Services with a draft of this report for review and comment. DPS responded in a letter Dated August 28, 2009 which is incorporated into this Report at Appendix C. DPS stated that our report was well written and DPS' comments showed that it generally did not disagree with our findings or recommendations. The Department noted that many of the conclusions from its review and evaluation were reinforced in our report and DPS asked that we include its May, 2009 report in this audit report, which we have done----see appendix B. DPS indicated that implementation of several of the recommended changes to processes and procedures have begun. DPS notes that because of the follow up on additional permitting errors noted they have already recovered \$51,000 in fees. The changes have been implemented in the areas of Permit Technician and Plan Reviewer training, error warnings in the Hansen system and the development of a permit review team for the Building Construction and Land Development divisions of DPS.

With respect to training, DPS stated it has held training sessions with the Permit Technicians and Plan Reviewers and has provided each with "cheat Sheet" that details valuation fields that must be completed based on the specific permit type. With respect to the Hansen system, the DPS IT department has programmed an error message to display if the incorrect valuation is completed based upon the permit type. With respect to internal review, DPS said it is assembling an audit team to review a percentage of the permits issued using the methodology CBH employed in completing this review. We note these positive developments and agree with the DPS that an evaluation of the fully implemented changes should be performed to determine their effectiveness in ensuring the accuracy of the permit fees calculated.

Lastly, DPS indicated that they felt the that the error computation for Permit #495223 had been subsequently corrected and that the potential undercharge identified in the Report should be eliminated from the summary table and clarifying language added to the Report. Based on the information available to us at that time, a monetary difference was apparent. We have, however, made additions to the report text and the tabular summary of results based on our being informed of the subsequent review by the DPS of the transaction. While we could not validate the new information from the subsequent review, we determined that the report should include it so that the reader would have all pertinent information relating to the transaction. Our complete comments on the DPS responses to the recommendations, which have led to the initiatives DPS is undertaking to improve the process, are set forth in Appendix D. Overall, it is CBH's assessment that

DPS' recent actions and plans are positive steps towards reducing its risk of producing inaccurate permit fee calculations.

### Appendix A: Montgomery County Department of Permitting Services Commercial Building Permit Fee Calculation Flow Chart

June 2009

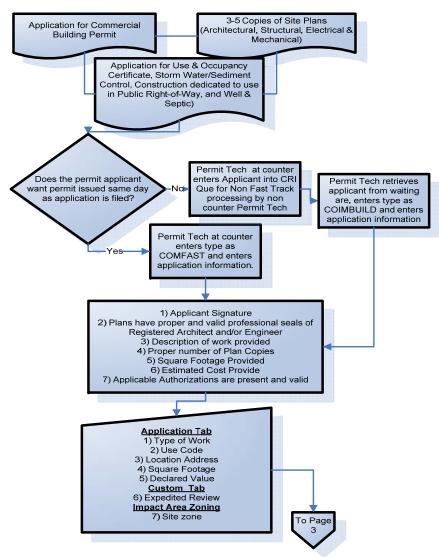
### **Procedure Execution**

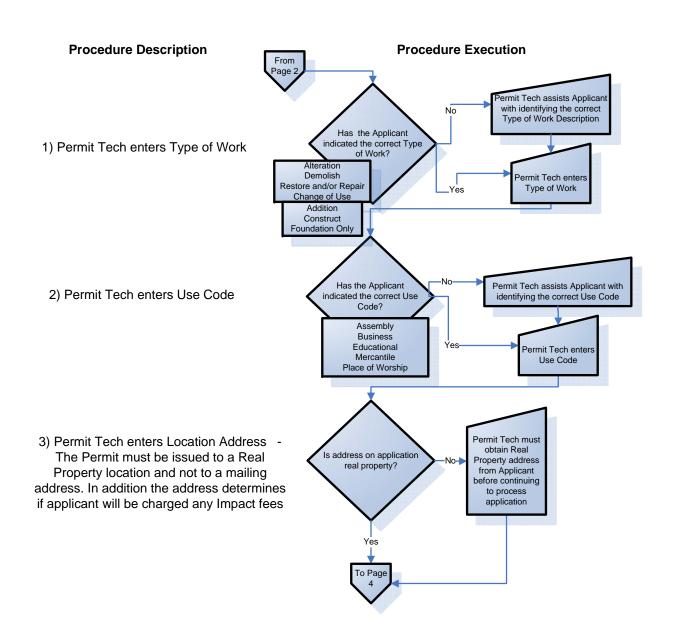
Permit Applicant presents application, site plans and other applicable authorizations to the Permitting Counter.

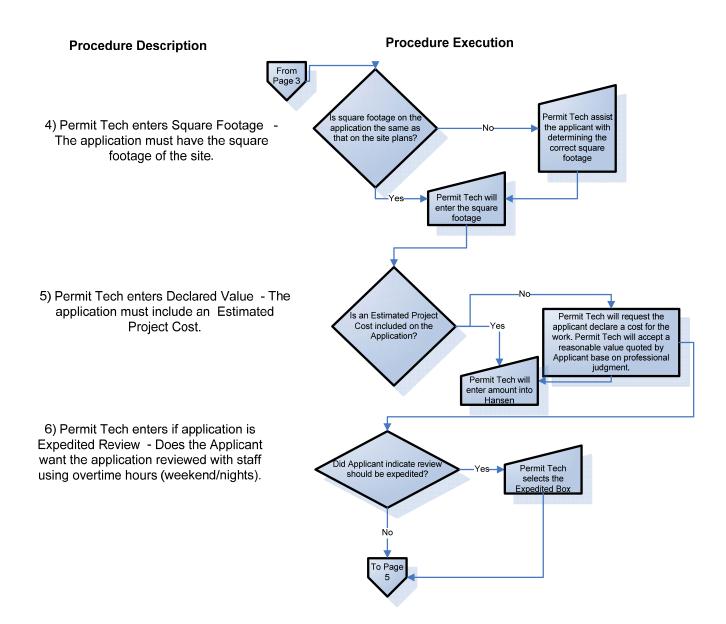
Permit Tech enters Permit Type

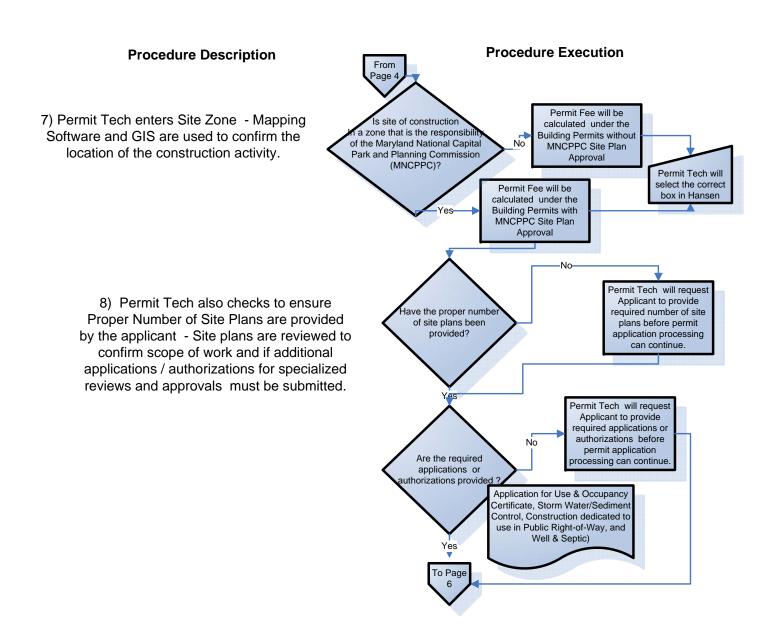
Permit Tech reviews the application, plans, and other applicable authorizations submitted to ensure application package has the following elements. If any elements are not present or have expired dates then the application is rejected.

Permit Tech validates and enters the following pertinent information into Hansen from the application:







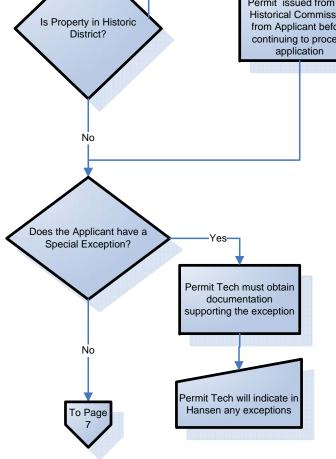


### **Procedure Execution**

9) Permit Tech verifies if the property is an Historical Property - If property is in Historical District then work permit must be obtained prior to application submission.

Permit Tech must obtain a Historic Area Work Permit issued from the Historical Commission Is Property in Historic District? from Applicant before continuing to process application

11) Permit Tech verifies if the Applicant has Special Exceptions.



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From Page 5

### **Procedure Description Procedure Execution** From Page 6 Application is Permit Tech "Next Stages" application in ls Filing Fee "Next Stage "in Waived? Hansen in order for the applicable permit Hansen Filing Fee to be calculated- Filing Fees are obtains support for set by Montgomery County Executive Waving Filing Fee for permits Regulation under Other Building and applications from Structures. County/State Is site of construction Departments a zone that is the responsibility of the Maryland National Capital Permit Tech Park and Planning Commission changes fee (MNCPPC)? status to paid, enters the project and budget code as the check Hansen will calculate information and filling fee as \$515 (FY 09) adds a notation ir Yes the Notes Tab that fee was waived. Hansen will calculate filing fee as \$825 (FY 09) Hansen will calculate an Automation **Enhancement Fee** that is 10% of the applicable filing fee Hansen will display the fees in the Fee Tab as unpaid Permit Tech collects payment from permit In Hansen on the Fee Tab, The Permit Tech The Permit The Permit Tech Permit Tech selects Pay Button. places the Tech accepts Applicant, records payment receipt in prints a receipt The Permit Tech selects the To Pag payment the payment from Hansen and Hansen, provides Applicant with receipt and Filling Fee and 10% Automation document and documents provides it to the Fee as fees paid and enters supporting from the places payment documents into department applicant as proof information from the payment documentation in applicant of payment. safe. Payments are made via credit card, document into Hansen department safe. check or cash.

## Permit Tech makes a copy of the Application and distributes the Application and Plan copies to the respective Plan Reviewers "in Bins" based upon the reviews that the Permit Type/ Use Type require.

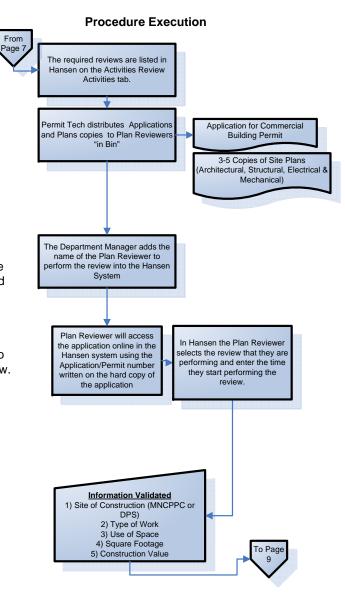
**Procedure Description** 

Managers for Plan Review pull the Application and plans of construction documentation from the "in Bin".

Department Managers assign performance of the reviews to the Plan Reviewers based upon discipline and work load.

Plan Reviewer receives the review assignment, pulls the application documentation for review, and enters into Hansen the time when they start the review.

One Plan Reviewer will perform a Site Review (Desk Review) which includes verifying information entered into Hansen by the Permit Tech to the application and site plans. In addition, the Plan Reviewer ensures the correct Construction Value is in the system to calculate the permit fee.

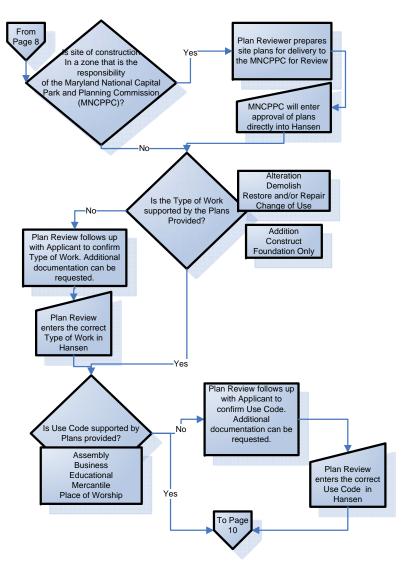


### **Procedure Execution**

Plan Reviewer verifies Site of Construction (Site Zone) as MNCPPC or DPS .

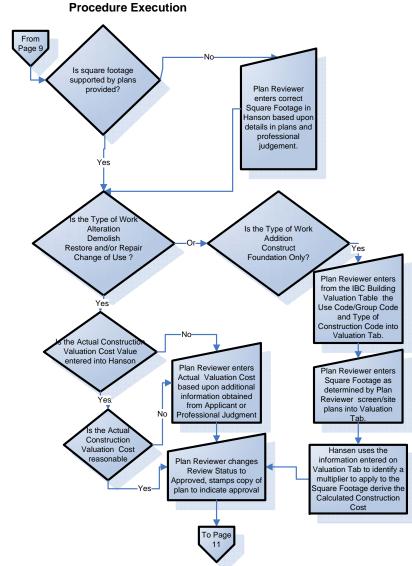
2) Plan Reviewer verifies Type of Work is correct for plans provided.

3) Plan Reviewer verifies Use Code is correct for plans provided.

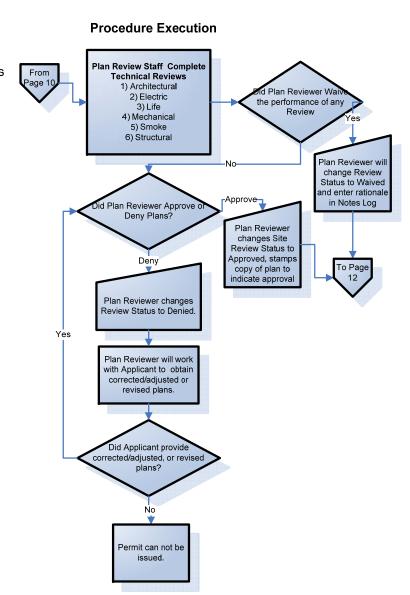


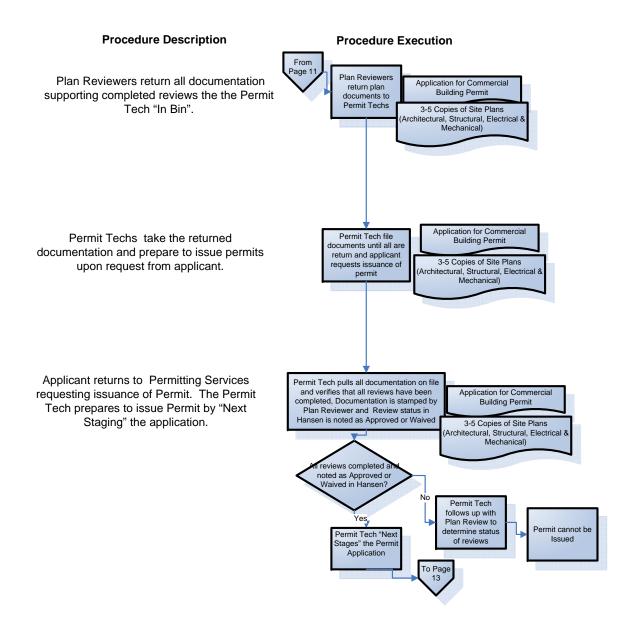
4) Plan Reviewer verifies Square Footage is accurate per plan provided and type of work being performed

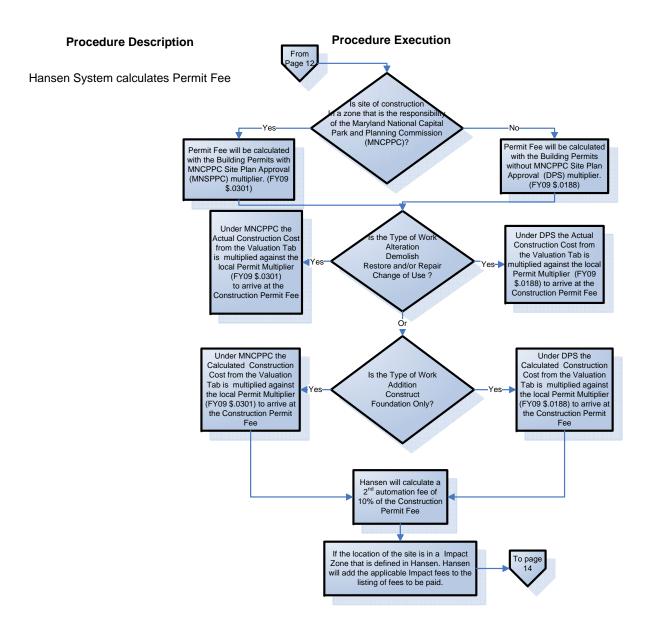
5) Plan Reviewer confirms if correct Construction Value is reasonable and entered in Hanson based upon Type of Work.

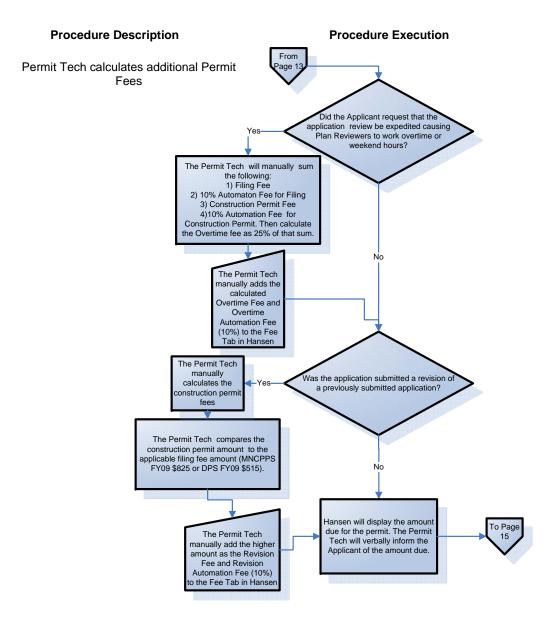


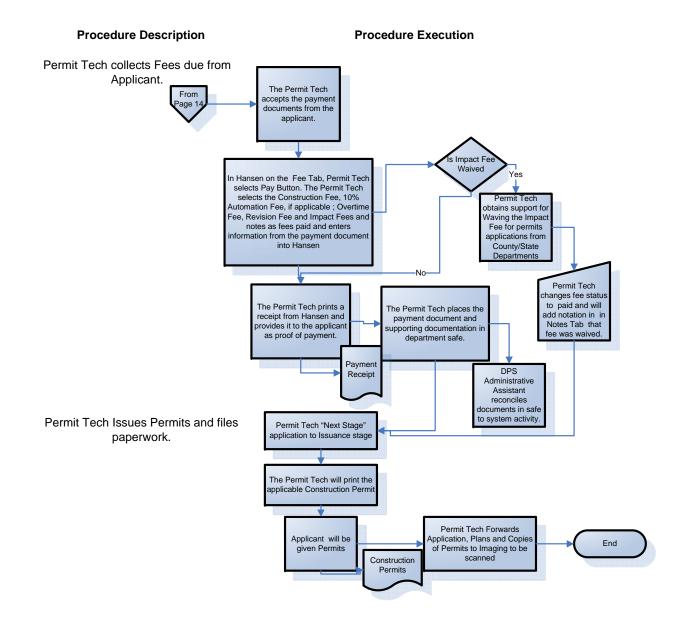
The Plan Review Department staff will complete other technical review of plans submitted.











### Appendix B: Montgomery County Department of Permitting Services Review of Commercial Permit Fees<sup>3</sup>

May 2009

<sup>&</sup>lt;sup>3</sup> This report included as Appendix B was prepared by the Department of Permitting Services.

Commercial permit fees from July 2008 through January 2009 were independently reviewed by a plan reviewer in the Building Construction division and by permit technicians in the Casework Management Division. Each staff person was directed to verify that the correct fee was charged for each permit based on the appropriate fee schedule and in accordance to the practices and policies of the Department of Permitting Services. Along with this report is a excel spreadsheet of the permits reviewed and the resulting deficits or overcharges.

George Muste, Gail Lucas, Thomas Laycock, Layiwola Afinnih and Christopher Allen then met to compare the results of each review. Several discrepancies in the execution of procedure, staff understanding of how the Hansen permit system processes, basic math computation errors and lack of adequate comments or notes detailing the action taken by staff on permits were discovered. Detailed below is a listing of the errors found and staff recommendations for correcting fee procedures going forward.

### **COMMON ERRORS**

### • Data entry errors

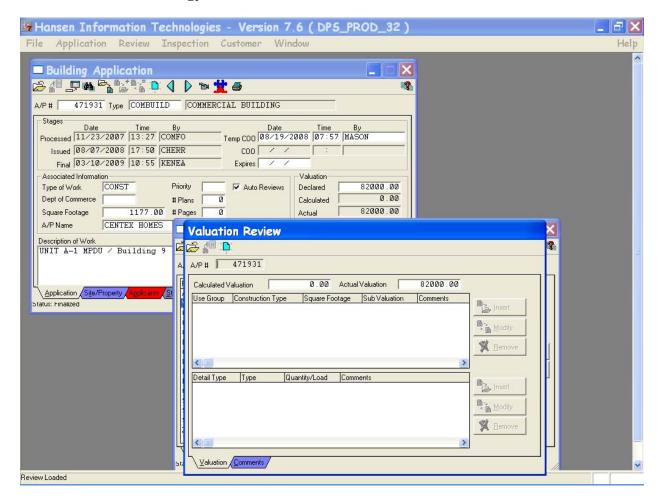
O Several errors were found to be a result of faulty data entry or typos (not enough zeros entered in dollar amounts)

### • Wrong permit type processed

- O A permit may be initially entered into the Hansen system as an ALTER (alteration) when it is fact it should be a CONST (new construction) permit or the permit is entered as a residential permit when it is commercial. Once the PT clicks the "Next Stage" button Hansen has processed the permit based on that particular permit or work type. If the permit or work type is later changed Hansen will not apply the correct equations to the computation of fees. The PT must manually calculate the fee amounts.
- o Conversion of COMFAST to COMBUILD. When permits are "kicked out" of fast track the original permit must be changed.

### • Permit valuations not completed in Hansen.

o For all permit types where the "type of work" is CONST, ADD, or FOUND Hansen calculates the permit fee based on the calculated value of the construction job. This calculated valuation must be entered in the appropriate valuation field in order for Hansen to perform the appropriate math equation based on the fee schedule in effect at the time of permit application.



o For permits where the type of work is ALTER, or RESREP (restore/repair) Hansen calculates the permit fee based on the **actual** valuation. This is usually the figure "declared" or determined by the applicant. This amount must be entered into the valuation field in order for Hansen to perform the appropriate math equation math equation based on the fee schedule in effect at the time of permit application.

### • Incorrect calculation of overtime fees

Overtime fees must be charged on the entire permit fee. The most common error is that the overtime fee calculation is charged only on the construction fee portion of the total permit fee. The overtime fee is a manually calculated fee (PTs do the math). Hansen cannot calculate this fee.

### • Incorrect calculation of revision fees

o There is an inconsistency in the calculation of revision fees.

- Current fee policy does not take into account certain types of commercial structures
  - Telecommunications antenna and commercial retaining walls technically have very little gross square footage (at their base) making it hard to calculate fees adequately.
- Lack of complete and/or incomprehensible documentation or notes on actions taken.
  - Notes of actions taken outside of normal permit processing or "special handling" of a permit are often missing from the permit record. Information that justifies a particular fee charged or waived is not clearly stated. Records of permit discussions or conversations with plan reviewers that result in different than expected permit fees are not documented.
- Lack of consistency in fee processing.
  - Exceptions to fee requirements are given without adequate explanation or documentation.
- Lack of full permit review before issuance.
  - Often the permit is processed and issued by different PTs. The issuing PT usually accepts the current permit information without question and does not necessarily verify that the permit information is accurate and correctly entered.

### RECOMMENDATIONS

- Clear fee policies MUST be developed and applied consistently across all work units.
- Permit Technicians and managers must be regularly refreshed in correct permit processing.
- Manual fee processing should be reduced.
- Wrong permit or work type permit applications should not be edited in Hansen.
   These permits must be voided and the permit entered and processed again correctly.
- Plan reviewers must calculate the required permit valuations and enter the calculated or actual valuations in the appropriate field in Hansen.

- Overtime fees must be calculated on the *total* permit fee. The four elements of a total permit fee are:
  - 1. Filing Fee
  - 2. Filing Automation Fee
  - 3. Construction (alter/resrep) Fee
  - 4. Construction (alter/resrep) Automation Fee
- Develop business process for special types of structures to include calculations of slab (horizontal) and height (vertical) square footages.
- Each staff person should fully document any actions or decisions made outside the normal permit procedure. Conversations with customers, fellow staff or managers must be documents in the permit application each time. The use of abbreviations, jargon and individual "shorthand" must be discouraged. The Hansen permit record should contain clear, easily comprehensible documentation on each permit and clear reasons for any deviations from normal processing.
- Fee exceptions should be rare and completely justified and documented.
- Permit Technicians are the first and last eyes on every permit. The issuing PT
  must, therefore, verify that all necessary information has been appropriately
  entered into the permit record. The PT should verify that all necessary fields are
  entered and that the information makes logical sense. The PT must verify that the
  permit calculations are correct, including verifying that the assumptions
  (valuations, work type, permit type) Hansen uses to process the permit fee are
  appropriate.

### **COMBUILD FY09 Fees NOT COLLECTED**

	Reported <sup>4</sup>	Actual <sup>5</sup> Permit	Reconciled <sup>6</sup>	
Permit #	Shortage	Balance	Balance	Error Reason
444766	\$512	\$512	\$512.00	Incorrect multiplier - should have used MNCPPC multiplier
471930	\$858	\$0	\$858.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471931	\$352	\$0	\$352.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471932	\$695	\$0	\$695.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471933	\$799	\$0	\$799.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471934	\$452	\$0	\$452.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471935	\$799	\$0	\$799.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471936	\$659	\$0	\$659.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471937	\$260	\$0	\$260.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
471938	\$804	\$0	\$804.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
474097	\$136	\$136	\$136.13	Overtime fee calculated incorrectly
476359	\$51,678	\$0	\$51,678.00	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
497968	\$2,032	\$0	\$0.00	
481040	(\$7,385)	\$7,385	(\$7,384.50)	Automation fee calculated incorrectly
481987	\$2,536	\$0	\$0.00	
482708	\$17,447	\$0	\$0.00	
485388	\$136	\$136	\$136.00	Overtime fee calculated incorrectly
485771	\$136	\$0	\$136.00	Overtime fee calculated incorrectly
485875	\$136	\$0	\$136.00	Overtime fee calculated incorrectly
486753	\$87	\$0	\$0.00	
487314	\$325	\$0	\$325.00	Overtime fee calculated incorrectly
488101	\$545	\$0	\$0.00	

<sup>&</sup>lt;sup>4</sup> CBH Footnote – This column is the results of the review by the Plan Reviewer
<sup>5</sup> CBH Footnote – This column is the results of the review by the Permit Technician
<sup>6</sup> CBH Footnote – The column is the results of the review by the joint team of Plan Reviewers, Permit Technicians and DPS Managers

488265	\$11,484	\$0	\$0.00	
				One set of consolidated drawings. Filing fee paid under above permit. Not charged rest of permit
488266	\$11,484	\$0	\$10,939.50	fee
489273	\$476	\$478	\$477.96	No valuation/fee calculation on ACTUAL valuation instead of plan reviewer CALCULATED valuation
490512	\$2,349	\$1,480	\$1,479.50	Wrong fee schedule multiplier applied
491140	\$1,675	\$1,675	\$1,675.00	Wrong fee schedule multiplier applied
492420	\$142	\$142	\$142.00	Overtime fee calculated incorrectly
492679	\$227	\$227	\$227.00	Overtime fee calculated incorrectly
493113	\$908	\$0	\$908.00	Did not pay filing fee
493288	\$908	\$0	\$908.00	Did not pay filing fee
493497	\$227	\$227	\$226.88	Overtime fee calculated incorrectly
493858	\$908	\$0	\$74.50	Change of permit from RESIDENTIAL to COMMERCIAL. Difference in filing fee not collected
493859	\$908	\$0	\$74.50	Change of permit from RESIDENTIAL to COMMERCIAL. Difference in filing fee not collected
494036	\$13,147	\$0	\$0.00	
494031	\$170	\$0	\$236.94	No valuation/fee calculation on CALCULATED valuation instead of ACTUAL
494841	\$567	\$0	\$0.00	
495710	\$545	\$0	\$545.00	Originally processed as COMFAST changed to COMBUILD. Difference in filing fee not collected
495852	\$908	\$0	\$0.00	
495988	\$908	\$39	\$38.50	Originally processed as COMFAST changed to COMBUILD. Difference in filing fee not collected
496166	\$142	\$155	\$155.10	Overtime fee calculated incorrectly
496261	\$908	\$0	\$0.00	
496540	\$4,183	\$0	(\$169.90)	Overtime fee calculated incorrectly
496600	\$341	\$341	\$341.00	
497638	\$227	\$227	\$227.00	Overtime fee calculated incorrectly
498232	\$567	\$0	\$0.00	
498537	\$908	\$0	\$0.00	
498543	\$1,088	\$0	\$0.00	
499512	\$567	\$0	\$0.00	
499643	\$267	\$227	\$226.88	Overtime fee calculated incorrectly
499699	\$417	\$0	\$0.00	
500445	\$16	\$13	\$15.67	Overtime fee calculated incorrectly
502051	\$16	\$36	\$15.67	Overtime fee calculated incorrectly

TOTAL	\$132,819	\$13,576	\$71,357 <sup>7</sup>
502246	\$1,231	\$141	\$1,239.62

Overtime fee calculated incorrectly

<sup>&</sup>lt;sup>7</sup> CBH Footnote – This is the net overpayment error amount.

## Appendix C: Department of Permitting Services Responses to Commerical Building Permit Calculation Process Review

August 2009



### DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett County Executive

August 28, 2009

Carla Reid Director

Ms. Deirdre Y. Bland, Audit Manager Cherry, Bekaert & Holland, L.L.P. 1934 Old Gallows Road, Suite 400 Vienna. Virginia 22182

Dear Ms. Bland:

This letter serves as the Department of Permitting Services' (DPS) response to your draft audit report of our Commercial Building permit calculation process. Thank you for your well written report. I know that our timeline was very short and you and your team did a thorough job. As a result of our recent meeting DPS has a few comments that we want to make about the report and some additional information that we want included in the report itself.

Please clarify the paragraph entitled "Permit Number 495223." Your report states that the Permit Technician (PT) was unable to calculate a construction fee for the revised portion of this permit and, therefore, overcharged the customer by \$566.00. This is not correct. The error discovered with this permit was that the Plan Reviewer (PR) did not document the construction value of the plan revision. The PT performed the calculation correctly. DPS has since double-checked the permit documentation and fee calculations. This customer was charged correctly not overcharged. We believe this paragraph and the preceding spreadsheet listing the five subject permits need to be corrected to reflect the actual error found.

I believe it is important that the internal staff report be included in the audit document. My staff did an excellent job of documenting some of the problems with our processes; in fact, you arrived at many of the same conclusions they did. That document also has a number of recommended changes to our processes to address some of the problems found. We have begun to put many of those changes in place. As a result of our internal audit we have already recovered \$51,678 in fees.

We have made a number of procedural changes already to ensure the correct data is entered into each permit record:

 We have held staff trainings with our Permit Technician and Plan Reviewer staff in how Hansen calculates fees and what information is required to make sure that calculation is accurate. Each permit technician and plan reviewer has a "cheat sheet" that details what valuation fields are to be used based on the specific permit work type; DPS Response Commercial Building Permit Calculation Process Review August 28, 2009 Page 2

- 2) DPS IT staff has put a requirement in our Hansen system (at the program level) that looks at permit and work types and "forces" the plan reviewer to enter a valuation in the correct field. Failing to enter a value or putting the valuation in the wrong field for the work type causes an error message to display and the permit may not be advanced beyond its current stage; and
- 3) We are putting together an audit team for the Building Construction and Land Development divisions of DPS. These teams will be responsible for reviewing monthly a percentage of the permits issued. This review will follow the same methodology our internal staff and your team used when performing our initial audits.

Once these changes are fully implemented, we will evaluate their effectiveness in making sure we get fees right. We will also be able to quickly pinpoint problems with staff execution or IT processing and make corrections in a more timely way. Thank you again for your assistance and we look forward to the finalized report.

Carla Reid Director

cc: Larry Dyckman John Homan Frank Spasoff Hadi Mansouri George Muste

Gail Lucas

# Appendix D: Cherry Bekaert & Holland, L.L.P. Comments to Responses provided by Department of Permitting Services

September 2009

The table below details the CBH recommendations provided in the report and the Department of Permitting Services (DPS) response regarding actions steps taken or to be undertaken to address the recommendations. Cherry Bekaret & Holland, L.L. P. (CBH) has provided additional comments regarding the adequacy and reasonableness of the action steps details addressing the recommendations provided.

<u>Table 1 – Report Recommendations with DPS response and CBH</u> comments

Recommendations	Department of Permitting Services(DPS) Response <sup>8</sup>	Cherry Bekaert & Holland, L.L.P. (CBH) Comments
Immediate Actions		
1. Reinforcement with Plan Reviewers through existing training activities  During regularly held training sessions, Supervisors should reinforce with the Plan Reviewers the construction values that should be present in Hansen based upon the type of work being performed. The errors noted in testing were the result of a Plan Reviewer not entering required construction values into Hansen. The training should review the Plan Reviewer's responsibility to ensure Hansen has the correct construction value based upon the type of work detailed in the permit application. In addition, the training should provide the Plan Reviewer with guidance on how and where in Hansen to document the construction values for plan revision to ensure Permit Technicians have the necessary information to select the proper Revision Fee to charge permit applicants. This in-service training would complement the current informal updates which occur when the Permit Technicians meet on a periodic basis.	1. We have had Staff trainings with our Permit Technician and Plan Reviewer staff in how Hansen calculated fees and what information is required to make sure that calculation is accurate. Each permit technician and plan reviewer has a "cheat sheet" that details what valuation fields are to be used based on the specific permit work type.	The actions described by DPS do address the recommendation provided and CBH agrees with the DPS plan as stated in the formal response to evaluate the effectiveness of the changes.
Consider the use of a Type of Work –     Construction Value Chart     The Permit Technicians should be	We have had Staff trainings with our Permit Technician	The actions described by DPS do address the recommendation

<sup>&</sup>lt;sup>8</sup> Column contains excerpts from the Department of Permitting Services letter dated August 28, 2009 (See Appendix C) and additional comments obtained from a conversation with Gail Lucas, Permitting Services Manager, on September 1, 2009.

Recommendations	Department of Permitting Services(DPS) Response <sup>8</sup>	Cherry Bekaert & Holland, L.L.P. (CBH) Comments
provided with a chart that summarizes, for each type of work, the construction cost value field that must be completed in Hansen. Currently, the Permit Technicians maintain a notebook where this type of information is recorded and accessed, but the information may not be uniform or complete across the group. In addition, Permit Technicians should be provided guidance to ensure they do not manually calculate construction permit fees when Hansen has calculated a zero value for the permit fee. The Permit Technicians should be directed to contact the respective Plan Reviewer to ensure the proper construction value is present in Hansen to facilitate the systems calculation of the construction permit fee.	and Plan Reviewer staff in how Hansen calculated fees and what information is required to make sure that calculation is accurate. Each permit technician and plan reviewer has a "cheat sheet" that details what valuation fields are to be used based on the specific permit work type.	provided and CBH agrees with the DPS plan as stated in the formal response to evaluate the effectiveness of the changes.
1. Implementation of Quality Control Activities CBH recommends the Department of Permitting Services develop and implement quality control activities to be used to detect errors in permit fees. The development and implementation of a mix of system and manual control activities should be considered. The timely detection of permitting errors can prevent the over or under collection of fees. The control activities should be applied to a sample of transactions selected in systematic manner to ensure all permit and work types are eligible for selection. The performance of the control activities should be done on a systematic basis (i.e., not ad hoc) Those performing the control activities should be able to perform a detail review of transactions that validates the data entered into Hansen and the judgments made by Permit Technicians and Plan Reviewers in processing the permit application. The results of the control activity should be used to determine if additional	1. DPS IT staff has put a requirement in our Hansen system (at the program level) that looks at permit and work types and "forces" the plan reviewer to enter a valuation in the correct field. Failing to enter a value or putting the valuation in the wrong field for the work type causes an error message to display and the permit may not be advanced beyond its current stage.	The actions described by DPS do address the recommendation provided and CBH agrees with the DPS plan as stated in the formal response to evaluate the effectiveness of the changes.

Recommendations	Department of Permitting Services(DPS) Response <sup>8</sup>	Cherry Bekaert & Holland, L.L.P. (CBH) Comments
transactions should be reviewed and if any additional training or reinforcement of procedures should be conducted.  Other Considerations  1. The Department of Permitting Services should Consider Undertaking a More Comprehensive Review of Permits issued in FY 2009  CBH recommends that the Department of Permitting Services consider the performance of a more comprehensive review of the Commercial Building Permits issued in FY 2009 to determine the magnitude of the over/under collection of permitting fees. The errors that we found in the testing were significant especially for such a small sample and justify further exploration as to how serious the problems are in monetary terms. The limited sample reviewed by CBH plus the numerous errors identified previously by DPS Management indicate a potentially significant error rate. The performance of such a review will increase the likelihood of identifying pervasive causes for permitting errors and any systemic error patterns with transaction types or transaction processors. CBH is recommending an audit plan that will provide the department with an approach to conduct such a review. A preliminary audit plan for this review has been submitted under separate cover.	1. We are putting together an audit team for the Building Construction and Land Development divisions of DPS. These teams will be responsible for reviewing monthly a percentage of the permits issued. This review will follow the same methodology our internal staff and your team used when performing our initial audits.	The planned actions described by DPS, if effectively implemented do address the recommendation provided.
2. The Department of Permitting Services should determine its Recourse and Responsibility for the Collection and Reimbursement of Fees CBH recommends that the Department of Permitting Services consult with the Montgomery County Attorney regarding the department's legal ability to collect additional fees and its responsibility to	1. Per verbal conversation with Gail Lucas, Permitting Services Manager, after consulting with the County Attorney DPS is drafting a policy that will set forth guidelines to	The planned actions described by DPS, if effectively implemented do address the recommendation provided

Recommendations	Department of Permitting Services(DPS) Response <sup>8</sup>	Cherry Bekaert & Holland, L.L.P. (CBH) Comments
refund permit fees. It is unclear what collection recourse, once a permit is issued, DPS has to pursue the collection of additional permit fees from an applicant due to an error by the department. Also, the length of time within which DPS is required to return overpaid fees to applicants should be determined. Since the permitting fees collected by DPS are used to fund department operations, DPS should ensure it is exercising its full power to collect any funds due to the County and return any funds due to permit applicants.	be used in determining when to seek recoupment of permit fees when an applicant has been undercharged. The policy draft is due by the end of November 2009.	